

1. Solve the system of equations using elimination:

$$-20x + 7y = 137$$

$$4x + 5y = 43$$

2. Solve the system of equations using substitution:

$$5y = x$$

$$2x - 3y = 7$$

3. Solve the system of equations algebraically:

$$8x = -2y - 10$$

$$2x = 4y$$

4. Using your graphing calculator, find the solution of the following system:

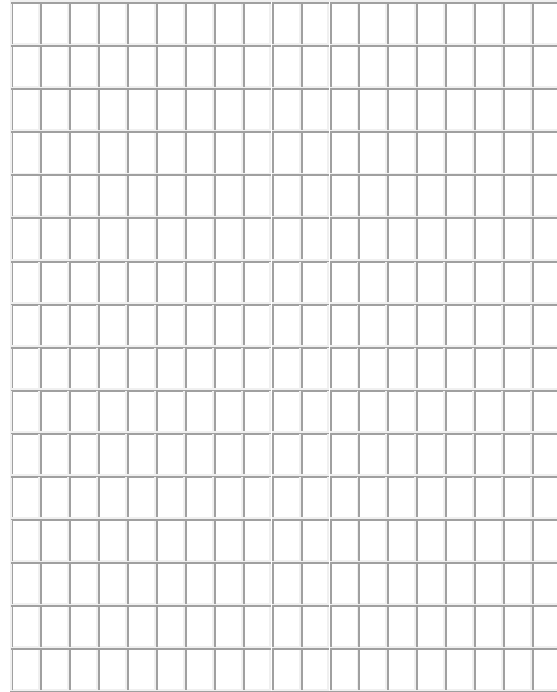
$$y = \frac{1}{2}x + \frac{9}{2}$$

$$y = 2x - 6$$

5. Solve the system of equations graphically:

$$-x + 2y = -2$$

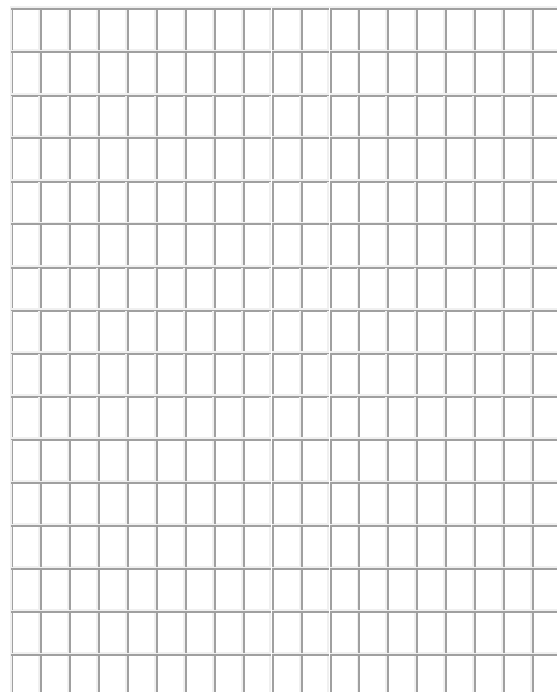
$$y = \frac{1}{2}x + 3$$



6. Solve the system of equations graphically:

$$3x + 4y = 12$$

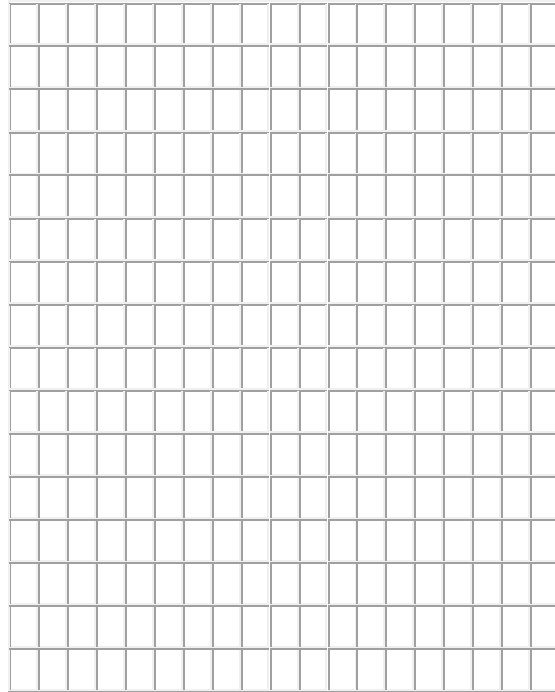
$$2x + 4y = 8$$



7. Solve the following system of inequalities graphically. Mark the solution with an **S**.

$$8x + 4y \geq 12$$

$$3x - 6y > 12$$



**Write a system of equations to represent the scenario and answer the related question.**

8. A baseball manager bought four bats and nine balls for \$76.50. On another day, she bought three bats and one dozen balls at the same prices and paid \$81. How much did she pay for each bat and each ball?

9. Stacy is interested in ordering party favors for her upcoming birthday party. She found two different online party suppliers that she can order from. Supplier A charges \$2 for shipping plus an additional 50 cents for each item ordered. Supplier B charges \$5 for shipping plus an additional 20 cents for each item ordered. Explain which supplier is a better buy, based on the number of items Stacy orders.